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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,542	06/23/2000	Warren L. Braun	05380003AA	1198

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EXAMINER

TRAN, HAI V

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/599,542	<b>Applicant(s)</b> BRAUN, WARREN L.	
	<b>Examiner</b> Hai Tran	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/18/2005 has been entered.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-2, 4-6, 12, 16-18, 20, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan (US 3757035) in view of Lo Galbo et al. (US 5280629).

Claim 1, Sullivan discloses a signal distribution system (Fig.1) including:

A communication path between a central facility 30 including signal source (33, 37) and a termination section (Branch 1..n) including a plurality of cable drops (21);

A condition detector (Fig. 9; el. 190) at respective ones of the plurality of cable drops (Col. 26, lines 1-65+);

Means (Fig. 5, 6) for providing a sequence of tones responsive to the condition detector (Col. 16, lines 66-Col. 18, lines 65+).

Means for coupling the sequence of tones to the communication path during a time slot determined by a time base at the termination section of the communication path (Col. 15, lines 45-Col. 16, lines 65; Col. 18, lines 44-45);

Means for decoding the sequences of tones at the central facility in accordance with respective time slot (Col. 18, lines 29-65+);

Sullivan does not clearly disclose a time base for determining the upstream's time slot at the termination section and a time base at the headend for determining respective time slot in which the headend decodes the received upstream.

Lo Galbo discloses the upstream's time slot is determined by the time base at the termination section and a time base at the headend in which the headend decodes the received upstream in accordance with respective time slots determined by a time base at the headend (Col. 5, lines 53-Col. 6, lines 6). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sullivan with Lo Galbo so to allow the

remote system to broadcast its message synchronously in which the synchronized system would compensate the efficiency of the system without directly evaluating the distribution channel delay.

Claim 2, Sullivan further discloses wherein the means for providing the sequence of tones provides a sequence of tone pairs (Fig. 9; Col. 25, lines 62-65+);

Claim 4, Sullivan further discloses wherein the condition detector detects at least one of power outage and ingress (Col. 18, lines 45-52);

Claim 5, Sullivan further discloses wherein the system is divided into plurality of sectors (Branches; Col. 8, lines 45-55);

Claim 6, Sullivan in view of Lo Galbo (Fig. 2, el. 501) further discloses wherein the time base is provided at directional coupler providing communication links to a plurality of the cable drops .

Claim 12, Sullivan further disclose means for controlling polling frequency of the cable drops (the central station cyclically transmits the interrogation signals to remote stations; Fig.3);

Claim 15-17, Sullivan in view of Lo Galbo must stores power for operation of condition detector by providing sequences of tones as discussed from the previous claims and modulate the carrier signal in the CATV environment.

As to "the frequency of the carrier signal is approximately 25 MHZ", Sullivan and Lo Galbo do not clearly disclose that upstream frequency of the carrier signal is approximately 25 MHZ; however, it would have been obvious to modify Sullivan in view of Lo Galbo to adopt to the widely use of the 25 MHZ frequency as a carrier signal for the upstream in the digital service or HDTV environment.

Claim 18, as discussed with respect to claim 1, Sullivan in view of Lo Galbo further discloses identifying a terminal unit in accordance with the sequence of tones at the central facility (Col. 18, lines 44-50);

Claim 20, Sullivan further discloses transmitting a further tone corresponding to the detected condition (Col. 11, lines 53-60).

Claim 22 is analyzed with respect to claims 15-17.

Claim 23 is analyzed with respect to Claim 2.

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2. Claims 7-11 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan (US 3757035) in view of Lo Galbo et al. (US 5280629), and further in view of Chang et al. (US 6260193).

Claim 7, Sullivan in view of Lo Galbo does not clearly disclose "wherein the time base includes a counter for counting time slots"; however, Sullivan in view of Lo Galbo discloses time slots (Sullivan Fig. 3).

Chang discloses "wherein the time base includes a counter for counting time slots" in which the television signal comprise an identifying data in the VBI which identifies a particular horizontal scan line of the television signal which corresponds to a start time of the time slot in which the decoder is used to start transmitting the respective message upstream to the headend in the respective time slot. A counter is used for counting the number of horizontal scan lines for detecting the particular horizontal scan line (Fig. 7-8; Col. 12, lines 25—65+). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sullivan in view of Lo Galbo with Chang so to provide a system for synchronizing one or more decoders with a network sync signal, thereby improving system throughput.

Claim 8, "a comparator responsive to the counter for identifying time slots corresponding to respective ones of the plurality of cable drops" is further met by Sullivan in which Fig. 3 shows a complete cycle of time slots of respective branches of the plurality of cable drops.

Claim 9, Sullivan further discloses means for latching an output of the condition detector and wherein the comparator is responsive to an output of the means for latching and the counter for controlling the means for generating the sequences of tones (Fig. 4A; Col. 12, lines 52-Col. 16, lines 66).

Claim 10 and Claim 11, Sullivan in view of Lo Galbo further discloses a time base at the central facility (Lo Galbo, Fig. 2; el. 401);

Sullivan in view of Lo Galbo does not clearly disclose “means for counting time slots at the central facility”;

Chang discloses “wherein the time base includes a counter for counting time slots” in which the television signal comprise an identifying data in the VBI which identifies a particular horizontal scan line of the television signal which corresponds to a start time of the time slot in which the decoder is used to start transmitting the respective message upstream to the headend in the respective time slot. A counter is used for counting the number of horizontal scan lines for detecting the particular horizontal scan line (Fig. 7-8; Col. 12, lines 25—65+). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sullivan in view of Lo Galbo with Chang so to provide a system for synchronizing one or more decoders with a network sync signal, thereby improving system throughput.

“means for comparing an output of the means for counting time slots and an output of the means for decoding the sequence of tones” is further met by



Sullivan in view of Lo Galbo and further in view of Chang so that the central facility is able to determine if all the interrogated subscribers did received all transmitted data and to further determine the status of the interrogated devices, as disclosed.

Claim 13, Sullivan must reset the counter after each transmitted/received cycle.

Claim 14, "means for synchronizing the counter with the means for counting time slots at the central facility" is further met by Sullivan in view of Lo and further in view of Chang so the system able to perform as discussed in claims 10-11.

3. Claims 3, 19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan (US 3757035) in view of Lo Galbo et al. (US 5280629), and further in view of Ortel (US 5712897).

Claim 3, Sullivan in view of Lo Galbo does not disclose wherein the means for decoding provides a digital signal input to a printer.

Ortel in a similar art discloses wherein the means for decoding provides a digital signal input to a printer (Fig. 3, el. 303; Col. 4, lines 49-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sullivan in view of Lo Galbo with Ortel so to produce an on-line

description of the problem detected including location of the network element affected (Col. 4, lines 50-54).

Claims 19 and 21 are analyzed with respect to claim 3.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is (571) 272-7305. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher C. Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht  
04/28/2005

  
HAI TRAN  
PRIMARY EXAMINER